

Abstract of the Invention

A system and methods are provided to learn and infer the time until a user will be available for communications, collaboration, or information access, given evidence about such observations as time of day, calendar, location, presence, and activity. The methods can be harnessed to coordinate communications between parties *via* particular modalities of interaction. The system includes a user state identifier that determines a user's state from background knowledge, the flow of time, or one or more context information sources. A data log can be employed to store information about user state changes and observational evidence to accumulate statistics and build inferential models of the availability and unavailability of users for different kinds of communication, collaboration, and information access. A forecaster is constructed from the accumulated statistics and/or learned models to enable a determination of a user's likely return, or, more generally, the probability distribution over a user's likely return to particular states of availability. The forecaster can be employed to cache information for offline access, drive displays of availability and unavailability, to send messages that include availability forecasts, and to automatically perform scheduling or rescheduling of communications.